

# Insecutor Inscitiae Menstruus

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## TWO NEW THYSANOPTERA FROM PANAMA

By J. DOUGLAS HOOD

The two species described below were collected by Mr. James Zetek, of the Isthmian Canal Commission, from a single plant of *Hura crepitans* L., on Taboga Island, in the Bay of Panama. The leaves of this plant bore numerous galls, about which the thrips were especially abundant and active. Whether they are actually responsible for these galls, or only visitors which find better food or protection in their vicinity, can not at present be answered, though it is interesting in this connection to note that their closest relatives are the Javanese leaf-folding species of the genus *Gynaiķothrips*.

### **Holopothrips**, new genus.

(ὄλος, entire; ὤψ, eye; θρίψ, a wood worm)

Head longer than broad and longer than prothorax; cheeks smooth. Eyes large, protruding, reniform in dorsal aspect, nearly contiguous below anterior ocellus and behind posterior ocelli. Ocelli closely approximate and anterior in position, the anterior ocellus directed upward and forward. Antennæ 8-segmented, slender, much longer than the head; fifth antennal segment as long as or slightly shorter than the fourth, and longer than the sixth. Mouth cone rounded at apex, labrum sharply pointed and slightly produced beyond labium. Prothorax half as long as head; chitinous plate at posterior angles fused with notum. Fore tarsi unarmed. Wings not narrowed at middle. Tube much shorter than head.

Type: *Holopothrips signatus* Hood.

The holoptic eyes, short tube, and the fusion with the notum of the chitinous plate at the posterior angles of the prothorax, appear to be characters of generic importance, which should serve to distinguish the two new species described below from the genus *Gynaiķothrips* Zimmermann.

The two known species may readily be separated by means of the following

KEY TO THE SPECIES OF HOLOPOTHRIPS

- A. Head 1.2 times as long as wide; eyes much longer than their distance from posterior margin of head; antennæ twice as long as width of head. Prothorax with anterior angular bristle about as long as postoculars. Antennal segments 3-6, fore tibiæ, all tarsi, abdominal segments 1-3 (rarely only 1 and 2), and usually the hind coxæ and femora, nearly clear white. *Holopothrips signatus* Hood
- AA. Head 1.6 times as long as wide; eyes much shorter than their distance from posterior margin of head; antennæ 2.7 times as long as width of head. Prothorax with anterior angular bristle minute and barely visible. Color of entire insect nearly uniform dark blackish brown. *Holopothrips tenuis* Hood

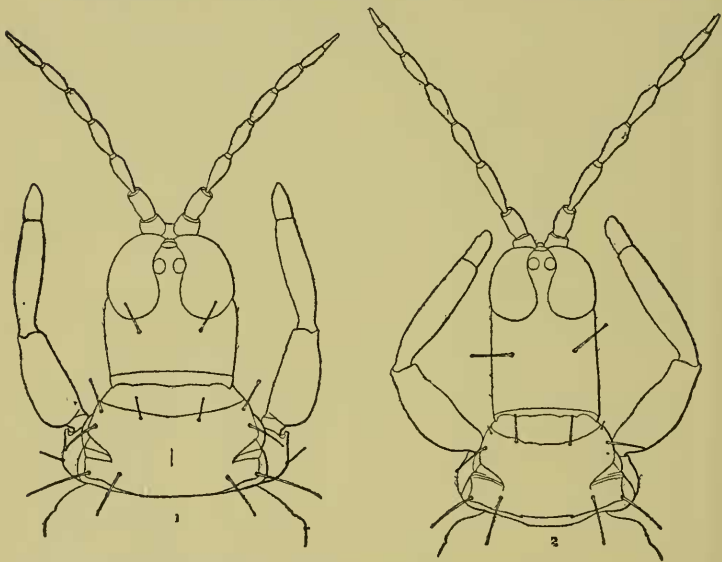


Fig. 1.—*Holopothrips signatus*, new genus and species, head and prothorax of female, greatly enlarged; holotype.

Fig. 2.—*Holopothrips tenuis*, new species, head and prothorax of female, greatly enlarged; holotype.

**Holopothrips signatus**, new species (fig. 1).

Female: Length about 1.7 mm. Color blackish brown, with coral red hypodermal pigmentation in head, thorax, and abdominal segments 4-9; antennal segments 3-6, fore tibiæ, all tarsi, abdominal segments 1-3 (rarely only 1 and 2) and usually the hind coxæ and femora, nearly white.

Head about 1.2 times as long as wide, broadest just behind eyes; cheeks rounded to eyes and converged gently to a slight collar-like widening at base; dorsal and lateral surfaces with close, transverse striæ and a few minute bristles; postocular bristles capitate, slightly less than half as long as eyes. Eyes large, prominent, reniform, half as long as head, almost enclosing the ocelli, nearly contiguous below anterior ocellus, produced inward behind the posterior ocelli to near the median line, the interval at this point only slightly more than one-third the greatest width of eye. Ocelli closely approximate and anterior in position. Antennæ slender, about 1.7 times as long as head and twice its width; segment 1 slightly wider than long; 2 subcylindrical, about twice as long as wide; 3 and 4 claviform, pedicellate, the former about two and one-half times as long as greatest width and with a very narrow pedicel; 5-7 subfusiform, truncate at either end; 8 about 0.8 as long as 7, slender, narrowed at base; sense cones and spines slender, nearly transparent. Color of antennæ: Segments 1 and 2 nearly concolorous with head; 3 pale grayish yellow, slightly darker near base and along outer surface; 4-6 nearly uniform pale grayish yellow, 6 shaded with gray apically; 7 and 8 light olive gray, the former yellowish at base. Mouth cone less than half as long as dorsum of head and somewhat wider than long.

Prothorax about half as long as head and (inclusive of coxæ) distinctly more than twice as wide as long; pronotum with short median thickening; all usual bristles present, capitate, the pair at the posterior angles longest; coxal bristle capitate, about as long as anterior marginal pair. Pterothorax slightly wider than prothorax. Wings dark brown at extreme base and lightly shaded with brown toward apex, the intermediate portion white; fore wings with about eight interlocated hairs on posterior margin. Legs slender; fore tibiæ, all tarsi, and usually the hind coxæ and femora, nearly clear white; fore tarsi unarmed.

Abdomen slender, only slightly wider than pterothorax. Segments 1-3 (rarely only 1 and 2) white, with a light wash of yellow, the third segment with a gray blotch in median third, just behind the transverse carina near base. Tube about 0.7 as long as head and about twice as wide at base as at apex. Abdominal bristles yellow or brown in color, terminal bristles darkest, distinctly shorter than tube.

Measurements of holotype: Length 1.67 mm.; head, length 0.252 mm., width 0.212 mm.; prothorax, length 0.124 mm., width, inclusive of coxæ, 0.348 mm.; pterothorax, width 0.372 mm.; abdomen, width

0.396 mm.; tube, length 0.174 mm., width at base 0.079 mm., at apex 0.041 mm. Antennal segments: 1,  $36\mu$ ; 2, length  $51\mu$ , width  $28\mu$ ; 3, length  $69\mu$ , width  $27\mu$ ; 4, length  $63\mu$ , width  $26\mu$ ; 5, length  $63\mu$ , width  $25\mu$ ; 6,  $51\mu$ ; 7,  $45\mu$ ; 8,  $35\mu$ ; total length 0.41 mm.

Male: Very close in color and structure to the female, from which it differs principally in the more slender head; fore tarsi absolutely unarmed.

Described from 21 females and 24 males, taken by Mr. James Zetek from the under surface of leaves of *Hura crepitans* L., on Taboga Island, Panama, October 18, 1913. According to Mr. Zetek they were very common in the vicinity of certain leaf galls, and he suggests that the thrips may have been concerned in their formation.

One female and nine males differ from the other specimens of the species in having the hind coxæ and femora dark brown instead of white. Structurally the two forms appear identical and at present seem not to deserve special names.

### **Holopothrips tenuis**, new species (fig. 2).

Female: Length about 2.2 mm. Color nearly uniform dark blackish brown, with coral red hypodermal pigmentation in head, prothorax, and abdomen; antennæ, tarsi, thorax, and apical half of tube slightly paler.

Head about 1.6 times as long as wide, broadest across eyes; cheeks almost parallel; dorsal and lateral surfaces with close transverse striæ and a few minute bristles; postocular bristles capitate, three-fourths as long as eyes. Eyes large, prominent, reniform, less than half as long as head, almost enclosing the ocelli, nearly contiguous below anterior ocellus, produced inward behind the posterior ocelli to near the median line, the interval at this point about one-fourth the greatest width of eye. Ocelli closely approximate and anterior in position. Antennæ slender, about 1.7 times as long as head and 2.7 times its width; segment 1 about as wide as long; 2 subcylindrical, about twice as long as wide; 3-5 claviform, pedicellate, the former about 3.4 times as long as greatest width and with a very narrow pedicel; 6 and 7 subfusiform, truncate at either end; 8 nearly 0.6 as long as 7, slender, narrowed at base; sense cones and spines slender, nearly transparent. Color of antennæ: Segments 1 and 2 nearly concolorous with head, 2 paler along middle; 3-8 brownish drab to almost yellow, the bases of 3-5 and all of 7 and 8 darker. Mouth cone about two-fifths as long as dorsum of head and about as wide as long.

Prothorax about half as long as head and (inclusive of coxæ) slightly more than twice as wide as long; all usual bristles present, the anterior angulars minute and pointed, other bristles long, capitate, the two pairs at the posterior angles slightly the longest; coxal bristle minute. Pterothorax distinctly wider than prothorax. Wings very lightly suffused with brown, and with a brown blotch at base; fore wings usually with from 10 to 12 interlocated hairs on posterior margin. Legs slender, nearly concolorous with body, tarsi slightly paler; fore tarsi unarmed.

Abdomen slender, only slightly wider than pterothorax. Tube about 0.7 as long as head and slightly less than twice as wide at base as at apex. Abdominal bristles yellow or brown in color, terminal bristles darkest, nearly as long as tube.

Measurements of holotype: Length 2.17 mm.; head, length 0.348 mm., width 0.216 mm.; prothorax, length 0.168 mm., width, inclusive of coxæ, 0.365 mm.; pterothorax, width 0.444 mm.; abdomen, width 0.468 mm.; tube, length 0.240 mm., width at base 0.090 mm., at apex 0.048 mm. Antennal segments: 1,  $42\mu$ ; 2, length  $63\mu$ , width  $33\mu$ ; 3, length  $113\mu$ , width  $33\mu$ ; 4, length  $90\mu$ , width  $33\mu$ ; 5, length  $93\mu$ , width  $31\mu$ ; 6,  $75\mu$ ; 7,  $73\mu$ ; 8,  $42\mu$ ; total length of antenna 0.59 mm.

Male: Length about 1.6 mm. More slender than female; fore tarsi absolutely unarmed.

Described from 26 females and 10 males, taken with the preceding species from the under surface of leaves of a plant of *Hura crepitans* L., on Taboga Island, Panama, October 18, 1913, by Mr. James Zetek. The species is thought by its collector to be partly responsible for the galls which were common on the leaves of its food plant.

## SEVEN NEW SPECIES OF ETHMIA FROM TROPICAL AMERICA

(Lepidoptera, Ethmiidæ)

By AUGUST BUSCK

### **Ethmia transversella**, new species.

Labial palpi white; second joint with three black annulations, the two lower of which are connected exteriorly; terminal joint with two black annulations. Face dirty white. Head dirty white with a large, dark brown central blotch. Thorax dirty white with two central, two lateral,